

Int. Appl. No. : PCT/IB03/00280
Int. Filing Date : January 10, 2003

AMENDMENTS TO THE SPECIFICATION

Please add the following paragraph on page 1, immediately after the Title of the Invention:

Related Applications

This application is a U.S. National Phase of International Patent application No.: PCT/IB03/00280, filed January 10, 2003, designating the U.S. and published in English as WO 03/098991 on December 4, 2003.

On page 2 of the Specification as filed, please replace the paragraph between the lines 4 and 10 with the following paragraph:

The TJ is a structure that surrounds the cellular borders at the limit between the apical and lateral membranes ~~membrane~~. It displays two fundamental roles: 1) as a gate that regulates the passage of ions, water and molecules through the paracellular route; and 2) as a fence that blocks the lateral diffusion within the plane of the membrane of lipids and proteins. This fence is crucial since it maintains the polarized distribution of lipids and proteins between the apical and basolateral to plasma membrane (Cereijido et al., 1998).

On page 2 of the Specification as filed, please replace the paragraph between the lines 11 and 17 with the following paragraph:

On ultrathin section electron micrographs, TJ are viewed as a series of fusion points "kisses" between the outer leaflets of the membranes ~~membrane~~ of adjacent cells. At these kissing points, the intercellular space is completely obliterated. On freeze-fracture replica electron micrographs TJ appear at the plasma membrane as a network of continuous and anastomosing filaments on the protoplasmic face (P), with complementary grooves on the exoplasmic face (E) (Gonzalez-Mariscal et al., 2001).

On page 8 of the Specification as filed, please replace the paragraph between the lines 17 and 25 with the following paragraph:

Aside of their function as cellular receptors for viruses, integrins constitute a family of $\alpha\beta$ heterodimers that mediate the interaction between the cell and the extracellular matrix. This interaction plays a crucial role in the regulation of cell no proliferation, migration and differentiation. In epithelial and endothelial cells integrins have a polarized distribution and

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localize at the basolateral plasma membrane. Therefore rotaviruses contained in the lumen of the intestine or at the apical surface of confluent epithelial cell lines could only have access to their integrin receptors at the basolateral surface if the TJ that seal the paracellular route are opened.

On page 28 of the Specification as filed please replace the paragraph between the lines 4 and 10 with the following paragraph:

- C) Synthesis of some of the peptides present in VP8 that bear a $\geq 50\%$ similarity to the extracellular loops of claudins and occludin. The peptides with SEQ. ID. No. 4: ~~¹⁴⁴VVKTT₁₄₇~~, ~~¹⁴⁴VVKTT₁₄₈~~ SEQ. ID. No. 5: ¹⁵¹SYSQYGPL₁₅₈, SEQ. ID. No. 6: ¹⁷⁴IYTY₁₇₇, and SEQ. ID. No. 7: ¹⁸³NVTT₁₈₆ were synthesized by the American Peptide Company, Inc. with a purity superior to 80% in their cyclic form by the addition of a cysteine residue on the amino and carboxyl to terminal ends of each peptide.

Please add the Abstract provided herewith as the last page of the Specification